GOLDEN WEST

NO. W-730½

19¢

614 - PORT HEDLAND

923 - Camp. 22 30 52

rd - 126

987 923 64

BROOME - 987

Many large BROOMS

turquoise water,

mangroves

leave Broome 6.000

021 P.M. Mainland

E. of Broome - open

E. woodland, grass.

4 P.M. - 100° F.

063 - low rise - hard

grassy woodland

109 M. 30 MI. W. LANGI CROSSING

BAOBABS - between Broome & Derby

STOP 390 - LANGI CROSSING, 10 M., X-13-62

2 nights - first in open savanna woodland of Eucalyptus, Bauhinia, and other - scattered BAOBABS 1/8 mile from R. full moon rising just at sunset - second night - on river bank on rock pepper - bastard tea tree & white-barked E. - sand, sandy stream, large brackish pools sandy, silty soil underfoot

Clear - quit 20 minutes after sunset

1/8 mile from river

850 night collecting

VERY BRIGHT MOONLIGHT - LIKE DAWN →

1700 specimens

097 - LANGI CROSSING

Huge truck (cattle or sheep) with 3 large-sized trailers!

Darwin stringybark

Darwin wollybutt

- Prosopis tree at Derby - shaped like

Second night - 90° evening, still, clear, part collecting - light 30 ft. from damp silty banks with beetles.

half an hour at daybreak before moonlight.

STOP 341 DERBY – 5 M.,

X – 16 – 62

150 spec.

specimens from fair
road in dry overgrazed
woodland – wasps nesting
etc. very hot (100° shade)
and dry – few drops
of rain day before,
not enough to cover ground.
Bauhinias, Eucalyptus,
BOABS =>

night – some specimens at
light in backyard,
partially cut up
neighborhood, open
woods –

warm, clear evening.

3 = Trailer ring – 50
cattle

DERBY – 26/60
leave X – 16 – 62

MLDA SCN – 189
(202 – few spec. 25 M.

KIMBERLEY DNS – 24

STOP 342 – KIMBERLEY
DOWNS 40 M., X – 16 – 62
sweeping flowering bushes
trees, pot green leaves
in garden around
homestead, – rolling
countryside, open woodland
& grassland, BOABS etc –
watered garden –
very hot, ~~sunny~~ partially
cloudy afternoon
no rain here recently,
though local thunder showers
(light) had fallen nearby
in past couple of days)

100 spec.

E. KIMBERLEY DNS. NAPIER RANGE

STOP 343 – WINJANA GORGE

~~3~~ 100 M., X – ~~3~~ 17 – 62

Rain 2 or 3 days earlier, results nearly dry –

wide sandy stream-trough steep sided limestone & marble canyon, lined with tea-tree, eucalyptus, fig, and a variety of other mostly evergreen trees.

90° – evening – several hours of darkness before full moon rose over cliffs

80° – DAWN –

Plenty of water in large pools – (fish, turtles, gators) apparently in HOT WATER down puddles – Birds in trees – leaves on sandy banks. Camp on flat area on bank about +60 ft above stream bottom – good night collecting, drawing from stream and open grassy woodland, mixture 1500 spec. of trees 20–40 ft. high.

FAIRFIELD DCH – 250

STOP 344 – TUNNEL CR. ~~3~~ FAIRFIELD, 150 M.,

X – 17 – 62

abrupt limestone & marble hill, gappily eroded on top, with spinifex, milkweeds, low trees, "BOABS", etc.

100° – afternoon 90° evening

Cave through mountain, creek muddy – sandy bottom – wasps nesting

camp dry dry stream bed with mixture of dead & evergreen trees, dry grass, open woodland of Eucalyptus or plains, mixed with bauhinia & other leguminous trees – BOABS here & there –

Pretty clear, occasional clouds.

Rain 2 or 3 days earlier, mostly dry river →

good night. Collecting until 3/4 moon rose
Pools in dry mouth - nearest water
Camped on E. side of Range, S. end of tunnel - on Fairfield Stn. land, about 20 miles from (S.E.) homestead.
80° F - dawn.
800 spec.

tunnel creek - 277

LEOPOLD - 308

FITZROY CROSSING - 358

STOP 345 15 M. W. LOUISA DNS.

250 N, X-18-62

(95 mi S.E. FITZROY CROSSING)

Camp in open, flat land grass & woodland; grass cover thin, base rock & sandy soil in some places.
Bank of small creek (branch of Christmas Creek) lined with more dense Eucalyptus, etc. very dry - large swarm of grasshoppers made light collecting difficult - no moth quite late - clear, 90° cooling later - 75° dawn
800 spec.

CAMP — STOP 345 —

457

LOUISA DNS. JCN — 471

MARGARET R. BY N. JCN — 486

LAMBOO JCN — 525

HALLS CK. — 557

few spks., 1 wind by here — aquatic, dung, etc PALMS MILL, N. HALLS CK. — 375 M., X-19-62

Rosas Bore & TURKEY NEST TANK — 513

ORD R. 620

STOP 346 — PALMS MILL, N. HALLS CK., 375 M., X-19-62

gently rolling country not far from low ridges hills — trees very widely spaced, overgrazed — creek with small pools near mill site. Few green shrubs, dominant plants of tough grass

hot, sunny day, short stop — most spks from dung & water

100 spks.

688
557
131

CAMP – 688 –
(100 from WYNDHAM, 81 from Hall's Ck.)
250 M. 15 MI. N. BOW RIVER

STOP 347 X-19-62

very dry area, flat spot rel. dry Ck, hilly area. Mod grass grazed & trampled off by cattle. Packed sandy soil. open woodland, windy night, 85°
mostly black light spec.

50 spec.

Black soil, dense woodland, with more variety of trees
picturesque hills

"Dry dos" trouble (tan trees
Pandanus more common
DUNHAM R.? : 731
grass with light
trash and very broad
leaves,

747 – 50 M –
STOP 348 X-20-62
sweeping & blowing
40 MI. S.E. WYNDHAM
open woodland 20–40 ft.
trees, variety – E. etc.
90° + hrs. drumming
diurnal observations
E. trees. dry
grassland –
rain sample done
previously.
300 spec.

STOP 349 - WYNDHAM, 5 M., X-20-62

some spec, hot 1000 afternoon, near town site - rocky ground - thin woods of 10 - 20 ft trees on a below rocky hill slopes - tapering off to flat grassy areas with few trees near the upper mud flats.

CAMP, few miles beyond near town site - flat area, red sandy soil, scattered clumps of 2-ft. grass, partially burned off - scattered Eu. w. Banksia trees - 88° evening 80° dawn very windy evening →

at first, calming down by 9 pm. - Callistemon spec - Celestial occurs on "nest" inside trees of trees. overcast morning

150 spec.

810 - leave new WYNDHAM

830 - GOOSE HILL CK, 10 M., X-21-62

STOP 350 - Eucalypt grove, very hot - by rocky knoll - rain recently. open woods, scattered small trees

grove Hill Ck. Site, WYNDHAM

75 spec.

IVANHOE CROSSING — 861

JCN. — 893

894 — N.T. border

NEWRY — 916

923 very few spec — possible Embiids — 100 M.

NORTHERN TERRITORY

STOP 351 — 27 Mi.

E. NEWRY, 50 M.,

X-21-62. (arc on hill (cliffs) open woodland, 15-25 ft. E. trees mostly Eucs 2 to 4 ft deep, very dry; valley between rocky hills & cliffs — mesas. warm evening

200 spec.

W. BAINES R. — 953

(ANTS-006-5 M.)

(EMBIIDS-007-10 M.)

TIMBER CK — 015

JCN — 032

deep dust high, spirted termite mounds very yellow sand P. leaves.

VICTORIA R. CROSSING — 30 M., STOP 352

X-22-62 few spec. from C. bark flakes, dry grasses banks of R. with some big pools — very hot — small beetle — sweeping small snakes.

150 spec.

100°F

VICTORIA CROSSING — 070

Palm trees against bluffs

WILLIAMSON — 11.8

MATHESON CK — 135

SCOTT CK. — 148

LIMESTONE CK. — 157

KING R. — 175

STOP 353 — 185 —

on KATHERINE R.

75 M., X-22-62

5 MI. S, W, KATHERINE

CAMP on flats above river — open woodland, ht. 20-40 ft, large millaneeka grass, very dry, sandy soil, variety of trees, bush

a green tropical area with pandanus along creek with deep water — aquatics in stillness with algae & plants. — warm, clear night, poor collecting. Some spec. from under bark flakes and along river banks.

350 spec.

KATHERINE – 195

pandanus cycads in limestone –

eucalypt – barked gum, pretty open woodland.

EDITH R. – 227

FERGUSON R. 236

(3 mile termite & ant 253 – 150 m.

PINE CK –

termite mounds as big as cars on dirt

PINE CK – 259

palm trees under story

bamboo – 310'

NELAIDER. 340

Darwin arkosic – sal-like woods – beautiful yard GRANGE PARK with pink flowering brilliant flamboyant associ

DARWIN – X-23-62

STOP 354 – DARWIN, 5 m.;

X-24-62 –

most spec. – Campus Granite, quartz, arkosic ftn. Surrounded by undisturbed evergreen woodland / understory of cycads, small shrubs & eucalypts 3 ft. high – some grass, not predominate Variety of trees Partially cleared & cleaning (200 spec.) during,

80°F. Soil fairly dry. Other insects — hot, dragging afternoon, cliffs above LAMEROO BEACH, — variety of large evergreen trees & other trees, practically no C. trees. 90°F

Leave Darwin X-24 afternoon 27436 SA

COOMALIE CK. 490

STOP 355 — STUART HWY, COOMALIE CK, 50 Mi, X-24-62. — NR. BACHELOR 7 MI N. ADELAIDE R. 800 spec. flat to rolling country — open evergreen woodland, largely C. trees — grass & small bushes on ground, camp 50 yds. creek 20 ft. on one side & rocky limestone hill with cycads 15 ft. on other. large bamboos & Pandanus & figs along permanent deep-pool creek. Rain recently (few trees also)

and again that afternoon, with partially cloudy 80° evening. Hot next morning. Black light collecting good for tiny material — many mayflies & gnats. C. trees 20 ft. tall to 30 ft. — 10 to 15 ft. Pandanus. varieties of drosophila

describe also below in notes

ADELAIDE RIVER 507

PONDS WITH WATER LILIES — 7 MI. S. ADELAIDE R. 50 M. X-25-62.

some spec. drosophila etc. from boggy probably permanent pools in broad depression btw. wooded hills. Many large trees partially standing pools — reeds growing in water — grass elsewhere — cattle grazing. warm morning.

PINE CK -

617 - fern

- Ochrach Legumes

Pretty woodland. Delicate brown, ochrous & purple - tropical genera, nearly deciduous; on rolling grassy downs.

MT. TODD

STOP 356 - EDITH FALLS NR. KATHERINE 110 M.

X-25-62 1000 spec

80° F grnd Camp 100 yds from large deep permanent pool bordered by tall Eg trees & typhad on 2 sides by high vert. cliffs. Camp sandy soil, some grass, deciduous woods & small 10 - 20 ft trees. - patches of dry - type - dung from cattle & tel Blade light - dominated by small

7/ mile termite 50 M
648 granite
32 MI. N.W. KATHERINE
market mile 660 -
110 M. sandstone, reddish brown sand
20 MI. N.W. KATHERINE

[INCLUDE SECTION NOTES]

ripple, partially shrubby, 80° F. color. Rain later at night. Some rain previously, ground wet from 3 to 5 inches. - pleated collapsed under story dense rough hill dove tailed dry trees - pecilium open woodland & deciduous & nearly deciduous grass & there - dry grass 3 ft deep.

680 Katherine

MAIPRANKA - 744

Verbena & smilax - 57

LARIMAL - 791

DALY WATERS - 849
180 M. 95°F.
X-26-62
very dry woodland,
some high grass

(last of @ woodland)
dense acacia
grass, peculiar
grass S. DALY WATERS

DUNMARA - 881
more grassy woodland

STOP 357 - 10 MI. S.
DUNMARA, 200 M.,
X-26-62 - 800 spec
flat country, about
1 MI. N. of PMG MEMORIAL
on Stuart Hwy. Camp
just off road in fairly
thick woodland of 10-15 ft.
acacia (dry-type) -
ground cover - thin grass
& dry flowers 1 ft. deep,
not complete cover -
red sandy soil -
day - fairly good
night collecting, warm
fairly calm evening.

892 camp -
NEWCASTLE WATERS
928
Below N. waters flow
Changes Jan 3rd
6 ft, scrub with
grass.

ELLIOT - 943
patches of dec. open
woodland - few or no
E. trees.

low scrub & grass
with scattered E. trees.

STOP 358 — 777
200 M., X-27-62
(nr. POWELL CK) 23 MI.
N. RENNER SPRINGS (sweep.)
Open grassy woodland,
scattered E. trees & some
of acacia

warm day, slight breeze
Spec. taken at E, blossoms,
flat country, some
rain recently -

200 spec.

Renner Springs
28000
MACVILLE - 010
BANKA BANKA 037

STOP 359 – old military base drive –

044 – 20 M.

7 MI. S. BANKA BANKA.

X-27-62 flat red sandy soil area with 10 – 15 ft. scattered acacias. Collect under old oil drums & scattered debris very hot & sunny, but heavy rain recently, ground moist beneath objects. Ground mostly bare, some grass

50 spec

JOHN F LYNN MEMORIAL

84

TENNANT CK. – POP

(CARAB MANTIS – KELLY WELL 280 M. white beetles, 121

BONNY DNS. – 300 M. – 159

SWEEPING E. BLOSSOMS

STOP 360 – DEVILS MARBLES, 350 M.,

X-27-62

80° F evening gently rolling countryside with scattered heaps of immense granite boulders exfoliating & forming surrounding granite sand plains covered with scattered clumps of Spinifex & other grass & dried herbs – not thick cover, occasional E. tree & large fig trees among rocks, some 9 ft. acacia scrub plant. Heavy rain recently, ground dry on top. Sunny afternoon, many Euc. blossoms. Warm (80°) evening, partially cloudy – terrific variety of insects – not many, hardly taken.

7 MI. N. WAUCHOPE

many grasshoppers about granite, also at light.

4000 spec.

DEVILS MARBLES - 166

WAUCHOPE - 173

200 - Area at
300 pr. flowers -
wet red, sand under
spinifex
X-28-62 27 MI. S.
WAUCHOPE -

heavy rain had fallen recently -
ground was moist several
inches down but dry on top.
variety of flowers - green ones,
red & yellow ones.

800 Apic.

STOP 361 - 14 MI. N. BARROW CK.

350 M. X-28-62
sweeping @ Hyoscyamus
low Acacia sp., up to
10 ft. - spinifex -
(red. pod @) Trees 10 ft.
apart, not much more than
10 ft. high - grassy
low flowers, dry ground
dead mild flowers -
partially cloudy 85°
morning, slight breeze

BARROW CK. - 240

(few spec - well on
BARROW CK. X-28-62 - 410 M.)

+1. TREE WELL - 301

ALICE SPRINGS

STOP 362 - well-fed
bore - 90° F. - partially
shaded by - 10 - 15 ft.
Acacia, Ghost Gum Trees
500 M., X-28-62
7 MI. S. TI-TREE WELL

gently rolling countryside, this a flat area - well drained, overflow forming puddle surrounded by short grazed grass - Surrounding bushes about 10 ft. apart, often growing in clumps - some 20 ft. acacias nr. bore - small fenced off paddock protected from cattle had good crop of grass everlastings, & small shrubs up to 3 ft. deep.
Sweep - herbage & roadside 300 m. blossoms.

RAIN RECENT

WAGGA-ALICE WELL - 328
AILERON - 338
(few-spec - 600 M, RYANS well NR. AILERON)
CONNORS WELL - 62
(LIZARD, red dirt and mud - 640 M. 384 BURT CK., N. ALICE SPRS.

STOP 363 N. ALICE SPRS.
625 M. (nr. 10 M. BORE)
X-28-62
CAMP - 75° overcast, clear slight breeze - cooling to 65° by morning.
Undulating Valley - the MACDONNELL Range - Rocky knolls nearby, large rocky hills behind. damp - light located on sandy plateau by sandy wash - no trees, mainly 6 - 10 ft. tea Ulla in full flower. Sweeping these was productive 15 - 30 ft. Eucalyptus & Prosopis white flowered trees scattered widely in the valley - none immediate to camp. Heavy rain recently - grass & wash-side herbs green & some flowers most spots & puddles about
Black light - fair - 1 box full.
1500 specimens
(cool snap exceptional rain for the area)

ALICE SPRINGS -
leave X-29-62 —

433

(3=trailer trucks - are
with hay & oil loaded
with drums - 2
cars stacked
high)

BURT CK - 469

(twisted gum - Lb.
P. proteaceous tree with
corky bark)

YAMBAH - 477.

BUSH / BAR 3 Car - 485.6

STOP 364 - ALICE SPRINGS
600 M., X-29-62
150 spec.
90° F, sunny, clear, only
slight breeze, warm often.
Located in valley surrounded
by rocky hills & ridges of
Macdonald Range. Most
spec. collected along TODD R.

RELATIVE COOL SWAMP

under River gum bank &
stones right in town, and
again along sandy Todd R.
banks just beyond the gap
beyond town.

Heavy rain recently, some
puddles of water & wet sand
in R. bed - sandy soil
damp. GAP - acacias &
Melaleucas, pine-like trees,
grass & herbs; river side
mallows, most everything
gone to seed - grass grayed
& slightly green from rain

STOP 365 - 11 MI. N.E. YAMBAH,
NR. ALICE SPGS., 625 M.,
X-29-62 1000 spec.
80° F, sunny, clear, slight breeze
Camp in valley, low rocky
hills with scattered,
branches, not far away,
higher range to the S.E.
Sandy soil supporting
low (grayed) grass
& small scrubby bushes & herbs
1-3 ft. high over
thinly. Scattered tall
Acacias 15 ft. & PROTEACEOUS

pine-like conifer, basket tree with yellow flowers (few) Heavy rain recently - washes still wet with some puddles & sand on tracks very windy late night & windy morning, clear.

Eucalyptus in this zone scarce except along substantial creeks

good night collecting

MUD TANK - 514

(Eritipelo, Ch. ania - 518.
525 M. bulldoze X-30

ALCOOTA - 527

(Acacia - 10-16 MILLIGAN
Lyons, old - Roger STURTON
cattle station - 960 sq.
miles.

---

leave - 538
arrive (The TOP
END

pearlier woods
& gnarled grey
acacia with flaky
bark, grasses thickly
on rock soil.

MT. SWANJCN - 578
(dung beetle trail
400 M. - 595

MR X CHALMERS - 600

STOP 366 - MACDONALD

DOWNS, 400M, X-30-62.
gently rolling country - dominated
by flat between low rocky
barren ridge and wide sandy
rivers lined with large gums.
Good grass on range (good
year - some rain recently,
hard moist just below
surface, water standing
in spots in river) grass
ants, birds, among, herbs a
small 1-ft. growth, pastoral

sandy soil. Camp in small grove of C. & ironbark (Lake nip) trees spread 5–20 ft. apart tree 15–30 ft. tall. (possibly R. Red Gum) Sweeping Gum flowers after sunrise very good; L herbage along R banks. Black light collecting good — many large pale scarabs & spiny scarabs. Warm, partially cloudy evening, some clouds in morning — 80°, cooling slightly later. Warm, sunny shortly after sunrise.

1000 spec.

611 MACDONALD DNS

636 - farm

fence - 659

671 R. [illegible]

ARAPUNYA Stn.

drive nearly 000RATIPPRA (270 miles) on spirit tank — act. 255 or 26)

000RATIPPRA 720

STOP 367 - 000RATIPPRA,

275M., X-31-62

80° evening - dry in distance 80° Cloudy warm

generally flat plain, grassland with scattered acacia scrubs & small trees. Homestead situated on Sandover R. lined with large Eucalyptus trees. Dry most of year. Especially good year - good pasture - nearly an inch of rain several days previously, mostly dried up again. Some small pools in stream. Camp about half mile from homestead, across sandy area bordering R. banks - large gums nearby, flat plains behind.

good black light collecting - water bottles - strong wind with approaching clouds at dusk, calming soon after. sandy, packed tan soil

1000 spec.

Isle of Inverlie
ARGIADARGINA JCN -

753
(wind est. 179 - 200 km)

E49 - Georgina R. Xing (Mitchell Plains)
(ALCOOTA - Mr. Q-more. IVOR Paine)
ODONATHERA - Mar. Hall

---

grassland without a tree - as far as one can see Mitchell grass & Spinifex - many large grasshoppers

XI-1-62

Georgina p. 859
(large flocks of budgies, cockatiels, & thousands of flock pigeons at waterhole for Argiadargada fem.)
(Lake Nash - 6,000 sq. miles - divided up, giving Georgina Downs 1200 sq miles

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STOP 368 - 885 NR. AUSTRAL DOWNS

10 P.M. XI-1-62
flat or nearly flat plain, treeless except for scattered black-barked E. trees along streams - grassland an appearance of dry cracked soil on a limestone formation. Camp not far from the Georgina R., upstream from crossing. No water at this point, just dry bed. Black light - partial tide at dusk (leave net) - 80°F - good collecting for temperature strong wind, later at night.

800 spec.

894 - Austral
Downs -
NDURANIE - 93

90 C.N. SMITHERS
the Australian Museum
6-8 College Streets
Sydney, ~~N.S.W.~~ N.S.W.,
Aust.

CAMOOWEAL - 943

63 - fair grassland

JCN - 87

+ BORNTONIA - 810
200 ft
fair woodland

16 - spinifex -
75 ft

GREGORY DNS - 81

STOP 369 - QUEENSLAND:
GREGORY DOWNS, 75 M.,
X 1-2-62 300 apx.
flat or nearly flat plains,
grassland with occasional
very thin patches of
E. trees.

Sweeping E. blossom, 15-ft.
trees (see C.S. rose plates of
Moreton) (many here) S. of
the hotel (homestead across the
river) - thin woods, grassed
floor. - Camp 150 yds.
from permanent clear - plains
Gregory R. in bank with
2 or 3 eroded gullies between camp & R.
Stream in channel with 10-ft.
sloping banks - dense PANDANUS
clumps, tall palms, and
very large tea trees bordering
stream. Heavily
grazed banks in woodland
of E. trees - plains
with very thin woods, E.
& contains trees. Black
light - 80°F, storm approach
distance, sandy, very poor
soil - light gray silty,
dusty, part. cracked -

STOP 370 - QUEENSLAND:
NR. BROOKDALE, 10 meters
XI-2-62

arrived 4 A.M. put out light & had good collecting for about ½ hour until wind came up - 80°F approaching cloud bank, like threatening storm which did not develop -

Camp 20 ft. from permanent deep, 10 ft. wide GREEN-GRAY R., just N. of Brookdale bridge; bank only 6 ft. above water, sloping, grazed & trampled by cattle., water slightly flowing, mostly stagnant. 20-30 ft. large tea trees & tall palms, some black-barked Eucalyptus or banksia, sesquite (introduced for browse) - Surrounding country - coastal plain, grassland with scattered patches of sparse woods, & a low rise 10-20 ft. high here & there.

said - light gray, silty, curling to crack; dusty area DRY - breeze partially clearing morning

300 spec.

(plains - often treeless

leave camp - 125

BURKETOWN - 156

ARMRAYNALD - 179

LEICHHARDT R - 200

207 - Ambiko at artesian well - LIZARDS - 50 M.

XI-3-62

210 - WERNADINGA -

grey schist - 9 day 27th T, mostly grass, bare trees.

orange beak E. WITH GREY BEAR WOOD - Silver Eye NEW ZEALAND BY

JCN - 242

255 - INVERLEIGH

[LINDEMAN R. - 274

MAGOURA - 254

NORMANTON - 301

STOP 371 - 14 MI. S.E. NORMANTON, 40 M., XI-3-62 80°F clear

Camp 30 ft. from large pond nr. permanent water of the Norman R., on E side of crossing - open savanna woodland. E. trees a variety of acacias a broad-leaved tree (dry-leaving, small) well spaced - dry. Sweeping creeping green grass (like Bermuda grass) along camp, cattle-trampled edge of pond - small dipteran & damsels. Black light fair - cloudy night, slight breeze.

not many aquatics - most flies over next morning 600 spec.

NORMAN R. - 315

Excellent varied flora of +15 ft savanna woodland. BIG TERMS

+(Ind - 380 - 75 M 15 MI. N.W. CROYDON

(Ind grassing out mid, 1 layer - 392 - 100 M, 3 MI. N.W. CROYDON

CROYDEN - 395

(408 - 150 M. - mid winged big-spined pandanus) DOONOMADICS - 2 grabatoppus

13 MI. E. CROYDON

MOTLEY ACACIA WOODS

(2 wide terms & funny orbs, 1 agaricid mid - 463 - 225 M.)

25 MI. W. GEORGETOWN

sweeping tree - 475 -
[illegible], nr Georgetown.
260 M large park - low open
woodland. 13 MI. W.
GEORGETOWN, XI-4-62
STOP 372 rolling to flat
countryside - ruined, abandoned
mine site, large man-made
pond with introduced trees
growing around - open bare
area surrounded by savanna
& woodland flat sunny
few clouds in sky. Recent
rain recently, sandy soil
moist. Large bees &
flies from blossoming (planted ?)
tree

150 spec.

GEORGETOWN - 488

FORSAYTH 5 13
(maps → 410 M.)

(PEREGRINE NEST, CRICKET,
CLARKS TERNS)

15 MI. S.E. FORSAYTH
528 - 701 M.
savanna & C. woodland

EINASLEIGH - 536

STOP 373 - 24 MI S.E.
EINASLEIGH
[illegible] W., XI-4-62 500 M,
80° - partly cloudy, still
broad flat valley between
low hills - entire area -
savanna woodland C. & bean acacias
and number of other evergreen
& few decid. trees 20-30 ft.
tall - no understory but grass -
few recent rain recently - few
[illegible] on sandy soil - branches
& logs scattered about.
Black light - many aquatic -
swarms of grate ants -
dealbata ant & term. collecting
in damp soil - Partly cloudy,
80° dark - damp cool
night, 70° low - clear sunny
morning.

800 spec.

(men visit camp wandering
about light)

Bridge - building camp on Quaskeigh R. - heavy rain here so long are felling trees and making all of bears, Cooghook.

CARPENTARIA DNS - 958

STOP 378. savanna woodland c. 20-50 ft. tall - 500 M - 602 - nr. dry stream

LYND XI-5-62 rain recently, ground still moist - small rocky grass covered outcrop - 2 miles inland above a loga - grass 1 to 3 ft. deep - dry & brown.

50 spec. (most spec in spec grass)

Isoptera, Orthoptera - red - flowered legumes little shade - open foliage.

LYND - 605

CONJUBOY - 627

STOP 375 - 629 - 500 M. - CONJUBOY, XI-5-62

EMBITOS

open savanna woodland, c. 40 ft. high - grass 1 ft. deep - galvanic rocks, loga, damp ground - deep red soil - warm, slightly, breezy, partially cloudy afternoon - 85° F most specimens taken under loga & stones scattered about in the grass - heavy rain recently. 30 trees spaced about 20 ft. apart - open foliage, plenty of light, not much shade

200 spec.

dealing with Large Cicadas trees covered with many dried shells

(BULLDOGS, SHELL VIAL — cockroach & scarab.
55 MI. S.W. MT. GARNET
650 M. XI-5-62)

STOP 376 — 667 - 750 M.

40 MI. S.W. MT. GARNET,
XI-5-62. low scrub
jungle, tangled vines &
thorny bushes, hard to
get through — dense. Scrub
like at about 15 ft, but
there are many emergences up
to 40 ft or 50 ft — mostly
large fig trees — Some C. trees,
though they do not dominate.
Many deciduous thorny plants
in scrub. Lichens, some
moss, and orchids on trees.

Black light — many small moths —
not terrific — 75, cooling to 68° F
by 11 P.M. few clouds, nearly 1/2
moon. Mantispids, 1 enbiid, cloak
moths etc.

area basically dry. This season
though heavy rain recently
wet the area. Soil deep, dark red-
brown, rich in leaf litter & C.
logs — nothing growing on it.
Rocky outcrops all through the
area →

600
400 spec.

MANY SPEC. UNDER STONES & LOGS

CAMP — 671 Leave.

685 — 650 M. STOP 377

(rain, some, big cumulus
EMBIIDS open woods 84° F

26 MI. S.W. MT. GARNET

C. woodland 30-40 ft. high —
open canopy — 1-ft. grass,
slightly green — damp soil
from recent rain — reddish
few scattered C. seedlings & small
shrubs. Most spec. under logs.
Lots of dead wood, ants &
termites XI-6-62

large cumulus, green chrysomelids.

100 spec.

Black lamps again

this is the farthest patch of scrub S.W. of Garnet — there is another patch some miles closer, the patch is very suddenly demarked from woodland — perhaps subterranean limestone formation — no topographic change — extent less than 3 mi. WIDE

Black light, nr. the road in small clearing beneath large fig — enclosed on all sides and above by branches.

LOW — 62° MORNING

711 - MT. GARNET
WILD R. - 725

STOP 378 - 725
620 meters
stream - blue
dam[illegible] Ck.
west of crossing of [illegible] Ck.
[illegible] granite,
[illegible] lava area
HERBERT R. drainage
84° F
sparse, cloudy

17 MI. E. MT. GARNET
XI-6-62
clear, turning on steep granite
slopes spirally covered with
grass - very open E. woodland.
Soil moist, recent rains.
Net collecting along flowing
stream in Herbert R. drainage
below the road, in bottom of
narrow valley. Creek lined
with bottle brushes (most
unique a bottle of this from these)
large tea trees, very large Casuarina
and streamside genus -
Sweep: dry grass produced some
insects

150 spec.

MILLSTREAM FALLS JCN -
737

STOP 379 - 5 MI. W.
RAVENSHOE 780 M.,
XI-6-62 350 spec.
(62° at 9 P.M.)
Camp at Millstream Falls,
public spot now, used to be camp
of troops of 1st and 9th Aust.
Divisions - 1943, 1944 -
rolling country, entirely old
basalts & lavas - open
E. woodland - trees 20-30 ft.
spars, 90 ft - 50 ft. high,
open canopy - 2 ft. grass -
[illegible]
Sleep light - in woodland, not
with[illegible] side of stream - coal,
mostly sleep. - big creek point -
[illegible]

Camp near edge of steep slope a
little; stream some distance
below; trail winds down steep lava
slope, mostly grass-covered -
water falls over columnar basalt
cliff, large pool, narrow stream
valley with deep grasses, [illegible]
of rain forest, bush a green
little brushes, large fig trees.
Sweeping grass, 1 larger -
most spec. from floor nr. pool
Soil damp, recent rains, grass
[illegible] up.

137 - falls.

RAVENSHOE - 742

splendid jacaranda outside 9 MI.

STOP 380 - RAVENSHOE, 1000 M., 7 MI. N.E outside 975M

XI-7-62 75°F

small patch of dense moist evergreen jungle 20-40 ft. high thick, solid canopy* dense tangle of thorny small palms; trees growing closely together, patch less than 1/4 mile long, only 150 ft. wide. Rolling hilly countryside, mostly cleared, now grassland. deep red-brown soil with thick moist layer of leaf mold (on roads to MILLAA MILLAA) warm sunny day, breeze - birdsongs, many butterflies & ants in jungle - many rotting logs on jungle floor. Area surrounded by grassland (cleared) with some secondary shrubs & vines.

* no substantial sunlight penetrates.

(one part of stop - 9 MI. N.E - see other page - afternoon collecting -)

late afternoon & night - 7 MI. N.E - damp in large clearing, old and fresh logs scattered here & there - on rolling hill, strip of forest by camp, most slopes nearby natural jungle; across road - large slope entirely covered with rows of dry dead cut trees.

BLACK LIGHT - poor - screen - 60° by 10 P.M. - low clouds blowing over - very slight breeze - half moon showing occasionally through clouds - Cool & damp.

800 spec.

7/9 leave camp.
few spec - 880 m, 17°7

MILLAA MILLAA - 760
MALANDA - 775

STOP 381 - MALANDA - 700 M.

XI-8-62 Small reserve of native jungle - 70 ft. high - trees growing close together, solid canopy, Ralan palm large flowing stalam, sweeping grass along banks good - many spec, esp a index damp valley log & an leaf litter & jungle floor - warm sunny midday - first about half mile from town MALANDA.

MALANDA FALLS on the 18°F NORTH JOHNSTONE R.

peripatus

800 spec.

embinds

MALANDA FALLS - 776

ATHERTON - 788

bridge - 800

STOP 382 - TINAROO L., NR. KAIRI, 700 M., XI-8-62 200 spec.

5.30-9 p.m. Man-made very large lake - flooded stony line, [illegible] environment - [illegible] sweeping pandin bladder-pod milkweed grass. Creek - Slopes steep to lake adjacent to lake covered with various types of trees - tall eucalypt, Cunonia, acacia woods, or thick rain forest. Camp located on steep narrow forested track about 8 miles beyond dam, right in the midst of jungle with large trees up to 100 ft. high - slightly more open than L. EACHAM and more tall - dry Perentie area - some rattan palm & undergrowth of seedlings & small plants - ground level, dominated with large soft leaves & some large - (reddish) soil hard packed, poor - little topsoil on steep slopes. Area only slightly damp. Good night, large moon, [illegible] Collecting

Level Camp - 808
YUNGABURRA

STOP 383 - L. EACHAM,

700M. XI-9-62 old volcanic crater; small very deep clear lake in National Park of dense rainforest jungle — trail around lake - Stella from steep lava - rocky slopes, thickly covered with soil & leaves. Atherton Tab Land (not far from Atherton) - deep soils

Jungle up to 70-120 ft. high, very thick tangle of rotan palms (a pandanus in patches pre. lake among immense ficus trees) - gently rolling country side, low hills, steep but soft drainage walls. Warm sunny days, ground moist from recent rains.

600 spec.

84 - Lake BARRINE
DP [illegible] 580'

84 - KURANDA

STOP 384 - 14 MI. N.W.
CAIRNS, sea level - XI-9-62

68°F - 9 P.M. (HESP PARK)

Camp right against steep hill covered with tall dry grass and open E. woodland, ocean beach, creek mouth only 50 yds away - On all the site surrounded by flat bottom land (probably swampy part of the year) covered with grass 4 ft. deep, slightly wooded - tall tea trees (paper-barked) and E. trees 40-50 ft. high open canopy - airy woodland thatch acacia trees. Casuarina trees in some thicker patches of woodland, tree cycads on steep hill slopes; small dry creek drainage lines support greater patches of denser more tropical growth (not forest as in any volcano - more like Indian mango groves) with some undergrowth, not much grass in the heavy shade. Also a strip, shorter grass

camp, of mangrove tangle, dry at upper end, of the whole woodland is extremely dry now - not a sign of water or moisture (except heavy dew in morning 80° late morning; sunny - 5 spec. collected late afternoon - early morning. Black light drawing from low woodland and hill slopes - very productive; full noon, clear, 68°F by 9 P.M.

200 spec.

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906 - leave camp.

leave Cairns - 920

GORDONVALE - 936

STOP 385 - 6 MI. W.
GORDONVALE, 50 M.
XI-10-62.
Little Mulgrave R.
90° F. slope of dissected valley, high forested hills behind, much of valley planted in sugar cane but creek course remains rather undisturbed = thick grove, fairly solid canopy, of 20-40 ft. trees, evergreen - patches of grass along stream, undergrowth of herbs & ferns 2-ft. deep - lantana encroachment at sunny edge adjacent to cane fields. Shady wooded along stream - thick layer of leaves on ground - area very dry, no rain recently, most spec. swept from understory streamside herbage
Hot, sunny, clear, slight breeze.

600 spec.

MULGRAVE R. VALLEY

GORDONVALE - 948

10 M., 8 Mi. S.
GODDSVALE - swamp.

971 - BABINDA -

STOP 386 - THE BOULDERS,
NR. BABINDA, 100 M.,
XI-10-62 65°F 10 P.M.
dull road up stream valley
W. Babinda camp in hilly country, flat areas of grassy clearing 150 ft. forest clear flowing streams, large granite boulders - rainforest 100-150 ft. high all along stream, moist overgrown clay edge rather steep up hill & down hills. dense forest, solid trees, canopy, thick tangle of palms, vines, etc. Dark rather dry, cool area.
Stream - clearing 150 wide and larger, bowing from [illegible] almost nothing but granite, 65° cool, clear - nearly full moon during black light time - quiet 9:30

the [illegible] forest in the park continues unbroken up the slopes of a range 3 to 5000 ft. high and extends into the distance Tableland beyond.

200 spec.

BABINDA - 979
INNISFAIL - 30000
SILKWOOD 024
TULLY - 042

STOP 387 - 51
20 M., XI-11-62
10 MI. S. TULLY 90°F
Low Coastal
blue Swallow tails. plain - good patch of special type of woodland, blending into swamp to the E., & acacia woods further S. Here there is a strange variant of C. a. tea tree up to 50 ft. tall, with a

moderate # of several species of palms, pandanus, some cycads, and all sorts & small young trees & bushes. The ground cover consists of several kinds of grass. The canopy is rather solid but not dense, letting in plenty of filtered light. This is basically a swamp-type woodland and the area is clearly very wet or inundated during part of the year. Nearly all the species are evergreen. Walking is easy in some places through young trees or a tangle of fig roots & pandanus makes going hard & yet through. Stag horn ferns & other epiphytes occur, though not thickly. The entire area is very dry just now — Specimens were collected (mostly not) in the works ~~re~~ along the roadside where tall grass and scattered trees predominate.

100 spec.

CAT-DWELL - 069

072 - 10 M. - few spec - granite, woodland - cycads, dripper

INGHAM 103

JCN - 131

native araucaria

PALUMA 143

STOP 388 - PALUMA; 2900 ft.,
XI-11-62 6:30 - 9:30 P.M.
rain forest 100-150 ft. high - good variety of plants - dense tangle of vines & rattan palms - rolling & hilly country - side of the top of the escarpment — fairly dry just now — Good light - in very small clearing along small cleared track through the forest - rather limited exposure - full moonlight covered

dry a thin layer of loam
mostly clumbs - drip
caused some tree drip.
Foliage - moonlight still in
existence. Generally poor at
light. Some spec. from
rattling Logs.

150 SPEC

PALUMA - 145 -
(few spec. - 5 MI. E. PALUMA,
475 M) fullday vic
crystal ck. spec. also
1086 ft. 152

157 JCN:
233
223 - Ckmp.
TO TOWNSVILLE 233

STOP 389 - 10 MI. S.W.
TOWNSVILLE, 50 M. - XI-12-62

generally flat country in
close proximity (1/8 mile)
to rocky woodland & grassy
hills. Camp in flat
field of open E. woodland -
grass ground cover,
rather sparse.
Extremely dry - everything
brown.
located off Charters Towers
road.
Blacklight - poor -
warm, nearly clear, moonlight.

150 spec.

EMBIDS — [illegible]
300 m. XI — 13

STOP 390 — TOWNSVILLE,
sea level, XI-13-62
ROSS + CAVAGNARO

Cape Pallarenda

big grassterms, fair open mangroves on grassy field bordering mangroves nr. trailer park. Most spec. a damp location on Cape Pallarenda road, N. of town. Backed directly by rocky hill, an E sitting by open woodland of coastal trees (acacias, some Eucalyptus, variety of figs, palms, and a thicket of thorny bushes understory in some places. very dry grasses on sandy soil. Camp right in edge of P.C. figs. Trees against hill. Partially cloudy, warm, slight breeze, canopy 4ft of sea 150 yards away.

150 spec.

Conditions extremely dry

14 MI. N.W. AYR

STOP 391 — 307(51)
20 M. XI-14-62 —

open mostly C. woodland, mostly deciduous, but leaves sparse now — grass ground cover, extremely dry. Specialized mostly by swampy herbs and some grass along standing edge of water-lily ponds on partial shade of 50-ft. poplar, banyan tea trees, Eucalyptus, & others — mud stony of pools; tall dry grass on sandy ground. Aquatics from small warm ponds, shallow, filled with algae & aquatic plants.

WEST BARRATTA CK.

Clear, breezy, hot.

Barometric pressure 1743 ft.

temp. 88° F.

1500 spec.

12 miles from GIRU

[illegible] — 325

few spec. 20 MI. S.E.
AYR, 25 M, XI-14-62
BOWER BIRD PLAYGRD

STOP 392 - 37 MI. N.W.
BOWEN
20 M., XI-14-02

flat coastal plain, deep black cotton, heavily cracked soil covered with 1-ft. brown grass - open E. woodland - trees widely spaced, much open ground. Camp by a small rocky hill with grass, scattered E. trees, and some fig trees.

warm, sunny late afternoon, warm slightly breezy evening, more rain sometime after dark.

NR. ARMSTRONG CK

80F.

(EMBIOS on hill - no. also mud tubing)

extremely dry

200 spec

360 - camp -
BOWEN 397
Leave 400

few spec, frogs - shallow
20 M. - small hill
in BOWEN XI-15

CANNONVALE - 457

STOP 393 - CANNONVALE,
0-30 M. XI-15-62

16°C) clear, slightly breezy
Camp first night
in the trailer park, airlie
Beach - large clearing
surrounded on 3 sides by
4-ft. dry grass and a
narrow open woodland bleeding
off into scrub on the hill
slope a few hundred yards
away. Dry spec. from creek
going up canyon into scrub
jungle - Lantana encroachment
in scrub stream is only
a trickle, clear light -
fair - mostly glare.
Camp XI-17 btw. airlie
Beach and Shute Harbour,
on small side track to a
large clearing used as

in a while for airstrip - across road from large plateau (Pasir Reserve) Camp right in a patch of scrub jungle, with trees upto 60 ft and all other sizes - Jungle of scrub around edges, leaving middle inside - trees close together. No ground cover in filtered sun & shade - fairly large - fairly dry. Many butterflies in scrub. Bloody light - drizzling along road - poor - showers for awhile during collecting.

Heavy human encroachment along edge of clearing.

very dry - rain dried by morning.

800 spec.

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leave CANNONVALE - 467
XI-18-62
PROSERPINE - 481
BLOOMSBURY - 506
527 - CALEN
MACKAY - 562

MIRANI 587
FINCH HATTON - 602
629 - NEBO PEAK

STOP 394 - 611

450 M., XI-18-62

2 MI. E. EUNGELLA.

Have to stopped twice by extremely steep creek running up very steep slope of escarpment. Slopes forested with tall scrub-rain forest - creek canyon [illegible] very tall palms - fairly dense canopy, filtered sunlight (not dark like rain forest on top) - small herbs in light spots along stream. Many termite nests in trees. Creek strewn with very large granite boulders & logs [illegible] here & there across trail. Air not collecting - some beetles in logs.

200 spec.

613 - EUNGELLA

STOP 395

950 M., - 62½ 8 MI. N.E.
EUNGELLA, XI-19-62

Camp located in a dense patch of rain forest between the DAIRYMPLE HEIGHTS ROAD & an extensive cleared rolling flat - several knolls in evidence, hillsides with rolling slopes & top - covered with green grass. Black light along a cleared track through the forest about 100 ft. from the cleared field. 70° evening, dorking @ 65° - Clouds came up and a small amount of rain fell. Flights of huge great flocks of Lorikeets - good bug collecting.

Forest: variety of trees upto 120 ft. high, some emergents 150 ft. Many tall palms (& tree ferns in spots) - thick undergrowth of seedlings & smaller plants. No Vines, Staghorn & other epiphytes on trees. Ground littered with layers of leaves & logs. Some rain recently; area fairly damp. Fairly clear evening - Black light, from dusk to 1 AM. Edge of Eungella National Park, on the Clarke Range.

Severe lantana encroachment along road and in some clearings

642 EUNGELLA
700 ft. - Open area - [illegible] trees, [illegible] Rain [illegible]
XI-19-62

MIRANI - 670
SARINA - 710

STOP 396 - 26 MI. S.W. SARINA
XI-19-62
220 ft. -
92° morning, about 74 evening
Camp in side road along small dry rocky creek, small creek valley with sloping sides, range of hills on 3 sides

slopes — damp soil from recent rains, rocks & logs & timber scattered all about — fire recently because I. Tr. dry grass still on ground and little ± leaves. Hilly area under savanna woodland Eucalyptus trees 40-60 ft. high mostly — few Casuarinas & more frequent (tall with bushy) growth along creek — some tea-trees — trees av. 10-30 ft. apart — very open country, not much shade — some E. trees nearly deciduous.

Blade light — right in woodland, slopes nearby ± 74°, nearly all clear ± warm — slight breeze. Scattered showers by 9 P.M. — couple of momentary drizzles. Large number of (about 200) MYRIOPODS — excellent collecting under stones & logs.

1000 spec.

Jones Camp 737
JCW-1 (Cairns) - 745
LOTUS DNS / 788
CROYDON - 798

200 M, - 804 Entrances
YATTON CK, BRUCE HWY.
STOP 397
XI-20-62 - Eucalyptus woodland & scrub — 50 ft H. E. tree, tall acacias and a great mixture of small plants and thorny ground cover. Large number of big Casuarinas with C. trees. Grass also. Ground littered with logs & branches. Dry [illegible] this season, area very dry*, collecting rather poor, mostly under log. Prickly pear encroachment, some up to 20 ft. high. Gently rolling country marked by small creek & flats, mostly dry.

*Some rain not long ago, ground moist down for inches

100 spec. →

Cuticula on rocks in stream NOTOLIGOTOMA.
(6 MI. S. CRAYDON)

Offsets dk. 936
MARLBOROUGH - 963
GLEN GEDDES 814
CANOONA - 898

STOP 398 CANOONA

75 M., X1-20-62

70° evening Camp at foot from gentle hills, on sloping area scraped against ope for gravel, regrowth of small acacias. Surrounded by open woodland, largely Eucalypts & grass, some blackbutt and ironbark & small 4-7ft. acacias. Sandy reddish gravel, slightly damp in one places. Fairly clear evening, no slight breeze. Collecting rather poor - very little under stones & logs -

100 spec.

ROCKHAMPTON 309'30
lube job

949 - 350 M.
EMBLOS, few spec -
4 MI. N.E. MT. MORGANS
X1-21

MT. MORGANS 953
DULULU - 973
WOWAN - 980
RANNES - 995

WASP – 012 – 210 M

BANANA – 023

grass sleeper battle trees on Acacia type of savanna woodland.

BILOELA – 051

THANGOOL – 058

LANGI – 070

/

STOP 399 – 17 MI. W.*
MONTO, 500 M., XI-21

66°F. 10 PM

* Change all labels from N. to W.

FORESTRY RESERVE, COOMINGLA RANGE. Camp in mixed woodland – trees up to 60 ft. high, spaced 20-30 ft. apart, open canopy, grass ground cover – some E. Acacia, Bloodwood & other mid story bushes up to 6 ft. Scattered about. Casuarina trees 20-40 ft. mixed in woodland. Soil fairly moist from some rain recently. Camp on gentle slope, light drawing from moonlight all around. 6:00 P.M. – Partly still, partially cloudy, loud calling under logs and bark, about as grassy as [illegible] log art nests. Excellent black light collecting. Vegetation mid story bushes.

1500 apprx.

085 – Camp.

MONTO – 112

STOP 400 – 16 MI. N.
EIDSVOLD
200 M.

XI-22-62 86°F.

Small patch of acacia trees upto 60 ft. tall, growing fairly close together – understory of acacia seedlings & bushes about 5

to 10 ft. tall
ground cover; leaf litter &
logs scattered on ground
surface. A few smoke dawns.
Surrounded by much more
open Eucalyptus woodland,
mixed species + grassy
grounddover. Seedlings
& small plants 2-4 ft tall
scattered through the
full sun or slight shade.
open canopy, little shade.
Emphasis on bark, collecting
under logs mostly, some
net spec.

200 spec.

EIDSVOLD - 157

STOP 401 - 159 - 200 M.
XI-22-62 EIDSVOLD

85°F Shirt afternoon stop out
of town on the MUNDUBBERA
road - stopped into road
prune between 2 vertical
ridge remnants, 1 on each
side of the road. Mixed E. &
large acacia woodland, wooded
rather than Sandy earth in

spots, grass clumps in
there. Some E., acacia seedlings
with 6 ft & small spices of
acacia bush in mid story -
patchy - wooded rather
open, open canopy - trees
20-30 ft. apart. Spec
under logs (dry) - weevils,
many on small acacias,
E., etc.

100 spec.

MUNDUBBERA - 177

GINDAH 208

BAN BAN SPRINGS - 224

[scorpion bottle - 225
160 ft. - perch on farm

BLP HR MORE - 231

STOP 402 - 10 MI. S. BAN BAN

200 M., XI-22-62

(26 MI. E. GAYNDAH) Rolling
countryside, generally mixed E.
wooded with grass groundcover.
Camp located nr. BRANT RIDGE

harvested; situated right at edge of gentle slope, in E. savanna woodland, only 20 ft. from the edge of a fair sized patch of scrub in a small gentle Creole canyon. Variety of trees, including Acanaceae, with many small shrubs & grass, often thorny & tangled, esp. at edges. Woodland had recently been cleared of grass by fire, but scrub had not been burned. Black cotton soil, sticky when wet. Soil moist underfoot from recent rain.

Black light - drawing from woodland & scrub both. Still, partially cloudy evening - 70°, 75°. Light rain falling, spells - throughout light collecting, which tapered off toward 10 P.M.. Clear early morning & beginning cloudy with substantial showers by 8:30.

600 spec.

Collecting under large good pome stands in woodland